



STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051

Phone: (860) 827-2935 Fax: (860) 827-2950

E-Mail: siting.council@ct.gov

Internet: ct.gov/csc

Daniel F. Caruso
Chairman

February 6, 2008

Steven L. Levine
New Cingular Wireless PCS, LLC
500 Enterprise Drive
Rocky Hill, CT 06067

RE: **EM-CING-107-080107** – New Cingular Wireless PCS, LLC notice of intent to modify an existing telecommunications facility located at 700 Grassy Hill Road, Orange, Connecticut.

Dear Mr. Levine:

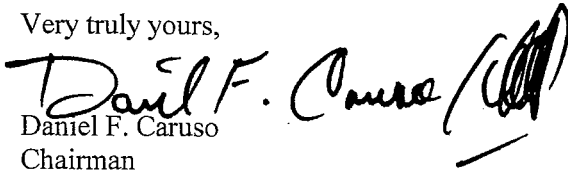
At a public meeting held on January 24, 2008, the Connecticut Siting Council (Council) acknowledged your notice to modify this existing telecommunications facility, pursuant to Section 16-50j-73 of the Regulations of Connecticut State Agencies.

The proposed modifications are to be implemented as specified here and in your notice dated January 7, 2008, including the placement of all necessary equipment and shelters within the tower compound. The modifications are in compliance with the exception criteria in Section 16-50j-72 (b) of the Regulations of Connecticut State Agencies as changes to an existing facility site that would not increase tower height, extend the boundaries of the tower site, increase noise levels at the tower site boundary by six decibels, and increase the total radio frequencies electromagnetic radiation power density measured at the tower site boundary to or above the standard adopted by the State Department of Environmental Protection pursuant to General Statutes § 22a-162. This facility has also been carefully modeled to ensure that radio frequency emissions are conservatively below State and federal standards applicable to the frequencies now used on this tower.

This decision is under the exclusive jurisdiction of the Council. Please be advised that the validity of this action shall expire one year from the date of this letter. Any additional change to this facility will require explicit notice to this agency pursuant to Regulations of Connecticut State Agencies Section 16-50j-73. Such notice shall include all relevant information regarding the proposed change with cumulative worst-case modeling of radio frequency exposure at the closest point of uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin 65. Any deviation from this format may result in the Council implementing enforcement proceedings pursuant to General Statutes § 16-50u including, without limitation, imposition of expenses resulting from such failure and of civil penalties in an amount not less than one thousand dollars per day for each day of construction or operation in material violation.

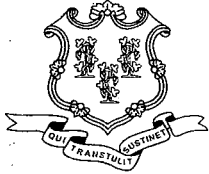
Thank you for your attention and cooperation.

Very truly yours,


Daniel F. Caruso
Chairman

DFC/MP/cm

- c: The Honorable James M. Zeoli, First Selectman, Town of Orange
Paul Dinice, Zoning Enforcement Officer, Town of Orange
Thomas J. Regan, Brown Rudnick Berlack Israels, LLP



Daniel F. Caruso
Chairman

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January 8, 2008

The Honorable James M. Zeoli
First Selectman
Town of Orange
Town Hall
617 Orange Center Road
Orange, CT 06477-2423

RE: **EM-CING-107-080107** – New Cingular Wireless PCS, LLC notice of intent to modify an existing telecommunications facility located at 700 Grassy Hill Road, Orange, Connecticut.

Dear Mr. Zeoli:

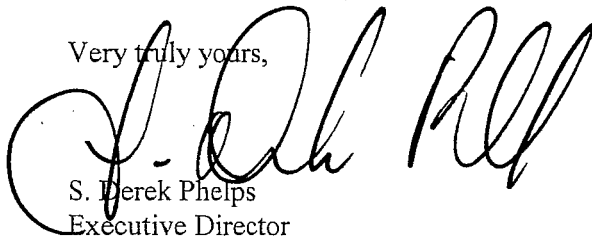
The Connecticut Siting Council (Council) received this request to modify an existing telecommunications facility, pursuant to Regulations of Connecticut State Agencies Section 16-50j-72.

The Council will consider this item at the next meeting scheduled for January 24, 2008, at 1:30 p.m. in Hearing Room One, Ten Franklin Square, New Britain, Connecticut.

If you have any questions or comments regarding this proposal, please call me or inform the Council by January 23, 2008.

Thank you for your cooperation and consideration.

Very truly yours,



S. Derek Phelps
Executive Director

SDP/jb

Enclosure: Notice of Intent

c: Paul Dinice, Zoning Enforcement Officer, Town of Orange



New Cingular Wireless PCS, LLC
500 Enterprise Drive
Rocky Hill, Connecticut 06067-3900
Phone: (860) 513-7636
Fax: (860) 513-7190

EM-CING-107-080107

Steven L. Levine
Real Estate Consultant

ORIGINAL

RECEIVED
JAN - 7 2008

HAND DELIVERED

January 7, 2008

CONNECTICUT
SITING COUNCIL

Honorable Daniel F. Caruso, Chairman,
and Members of the Connecticut Siting Council
Connecticut Siting Council
10 Franklin Square
New Britain, Connecticut 06051

Re: New Cingular Wireless PCS, LLC notice of intent to modify an existing tele-
communications facility located at 700 Grassy Hill Road, Orange (owner, Sprint)

Dear Chairman Caruso and Members of the Council:

In order to accommodate technological changes, implement Uniform Mobile Telecommunications System ("UMTS") capability, and enhance system performance in the State of Connecticut, New Cingular Wireless PCS, LLC ("Cingular") plans to modify the equipment configurations at many of its existing cell sites. Please accept this letter and attachments as notification, pursuant to R.C.S.A. Section 16-50j-73, of construction which constitutes an exempt modification pursuant to R.C.S.A. Section 16-50j-72(b)(2). In compliance with R.C.S.A. Section 16-50j-73, a copy of this letter and attachments is being sent to the chief elected official of the municipality in which the affected cell site is located.

UMTS technology offers services to mobile computer and phone users anywhere in the world. Based on the Global System for Mobile (GSM) communication standard, UMTS is the planned worldwide standard for mobile users. UMTS, fully implemented, gives computer and phone users high-speed access to the Internet as they travel. They have the same capabilities even when they roam, through both terrestrial wireless and satellite transmissions.

Attached is a summary of the planned modifications, including power density calculations reflecting the change in Cingular's operations at the site. Also included is documentation of the structural sufficiency of the tower to accommodate the revised antenna configuration.

The changes to the facility do not constitute modifications as defined in Connecticut General Statutes ("C.G.S.") Section 16-50i(d) because the general physical characteristics of the facility

will not be significantly changed or altered. Rather, the planned changes to the facility fall squarely within those activities explicitly provided for in R.C.S.A. Section 16-50j-72(b)(2).

1. The height of the overall structure will be unaffected. Modifications to the existing site include all or some of the following as necessary to bring the site into conformance with the plan:

- Replacement of existing panel antennas with new antennas of similar size, shape, and weight, or, installation of additional antennas of similar size, shape, and weight.
- Installation of small tower mount amplifiers ("TMA's") and/or diplexers to the platform on which the panel antennas are mounted to enhance signal reception.
- Installation of additional or larger coaxial cables as required.
- Installation of an additional equipment cabinet in existing shelters, or on existing or enlarged concrete pads.

None of these modifications will extend the height of the tower.

2. The proposed changes will not extend the site boundaries. There will be no effect on the site compound other than some enlarged equipment pads as may be noted in the attachments.

3. The proposed changes will not increase the noise level at the existing facility by six decibels or more.

4. Radio frequency power density may increase due to use of one GSM channel for UMTS transmissions. However, the changes will not increase the calculated "worst case" power density for the combined operations at the site to a level at or above the applicable standard for uncontrolled environments as calculated for a mixed frequency site.

For the foregoing reasons, Cingular Wireless respectfully submits that the proposed changes at the referenced site constitute exempt modifications under R.C.S.A. Section 16-50j-72(b)(2).

Please feel free to call me at (860) 513-7636 with questions concerning this matter. Thank you for your consideration.

Sincerely,



Steven L. Levine
Real Estate Consultant

Attachments

CINGULAR WIRELESS
Equipment Modification

700 Grassy Hill Rd, Orange, CT
Site Number 3159
Former AT&T site
Docket 262 approved 1/12/04 (intervenor)

Tower Owner/Manager: Sprint

Equipment configuration: Monopole

Current and/or approved: Three Allgon 7721 antennas @ 140 ft c.l.
Six runs 1 5/8 inch coax
Two outdoor cabinets on existing 8 x 18 ft pad

Planned Modifications: Remove all existing antennas
Install three Powerwave 7770 antennas @ 140 ft c.l.
Install six TMA's @ 140 ft
Install two additional outdoor cabinets for UMTS

Power Density:

Worst-case calculations for existing wireless operations at the site indicate a radio frequency electromagnetic radiation power density, measured at ground level beside the tower, of approximately 19.0 % of the standard adopted by the FCC. As depicted in the second table below, the total radio frequency electromagnetic radiation power density following proposed modifications would be approximately 20.3 % of the standard.

Existing

Company	Centerline Ht (feet)	Frequency (MHz)	Number of Channels	Power Per Channel (Watts)	Power Density (mW/cm ²)	Standard Limits (mW/cm ²)	Percent of Limit
Other Users *							17.19
Cingular GSM *	140	1900 Band	4	250	0.0183	1.0000	1.83
Total							19.0%

* Per CSC records.

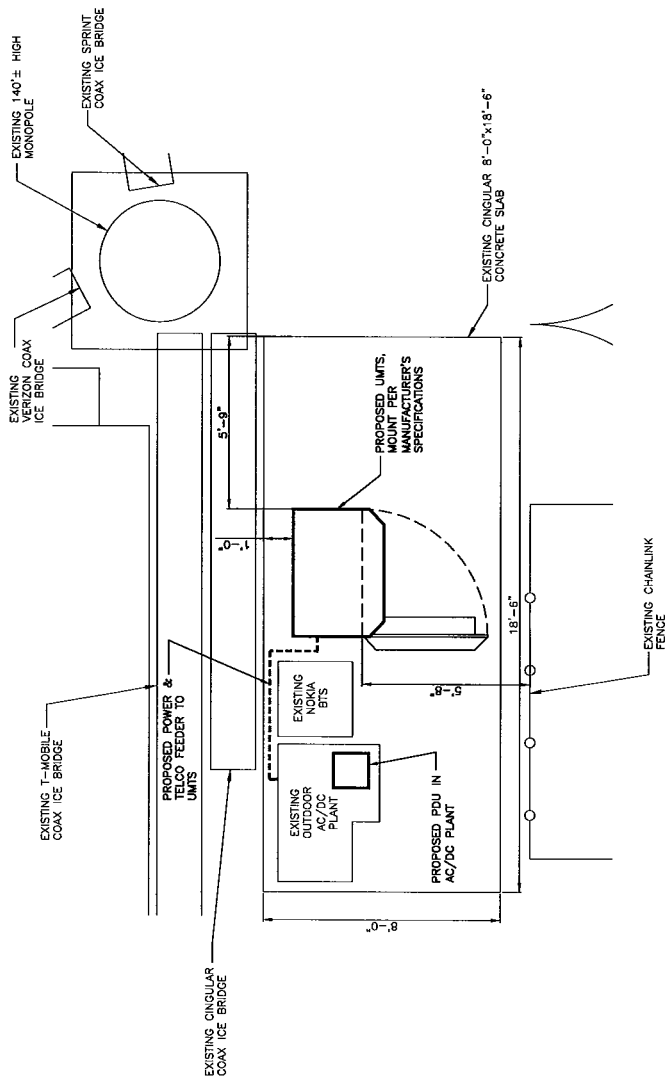
Proposed

Company	Centerline Ht (feet)	Frequency (MHz)	Number of Channels	Power Per Channel (Watts)	Power Density (mW/cm ²)	Standard Limits (mW/cm ²)	Percent of Limit
Other Users *							17.19
Cingular GSM	140	1900 Band	2	427	0.0157	1.0000	1.57
Cingular UMTS	140	880 - 894	1	500	0.0092	0.5867	1.56
Total							20.3%

* Per CSC records.

Structural information:

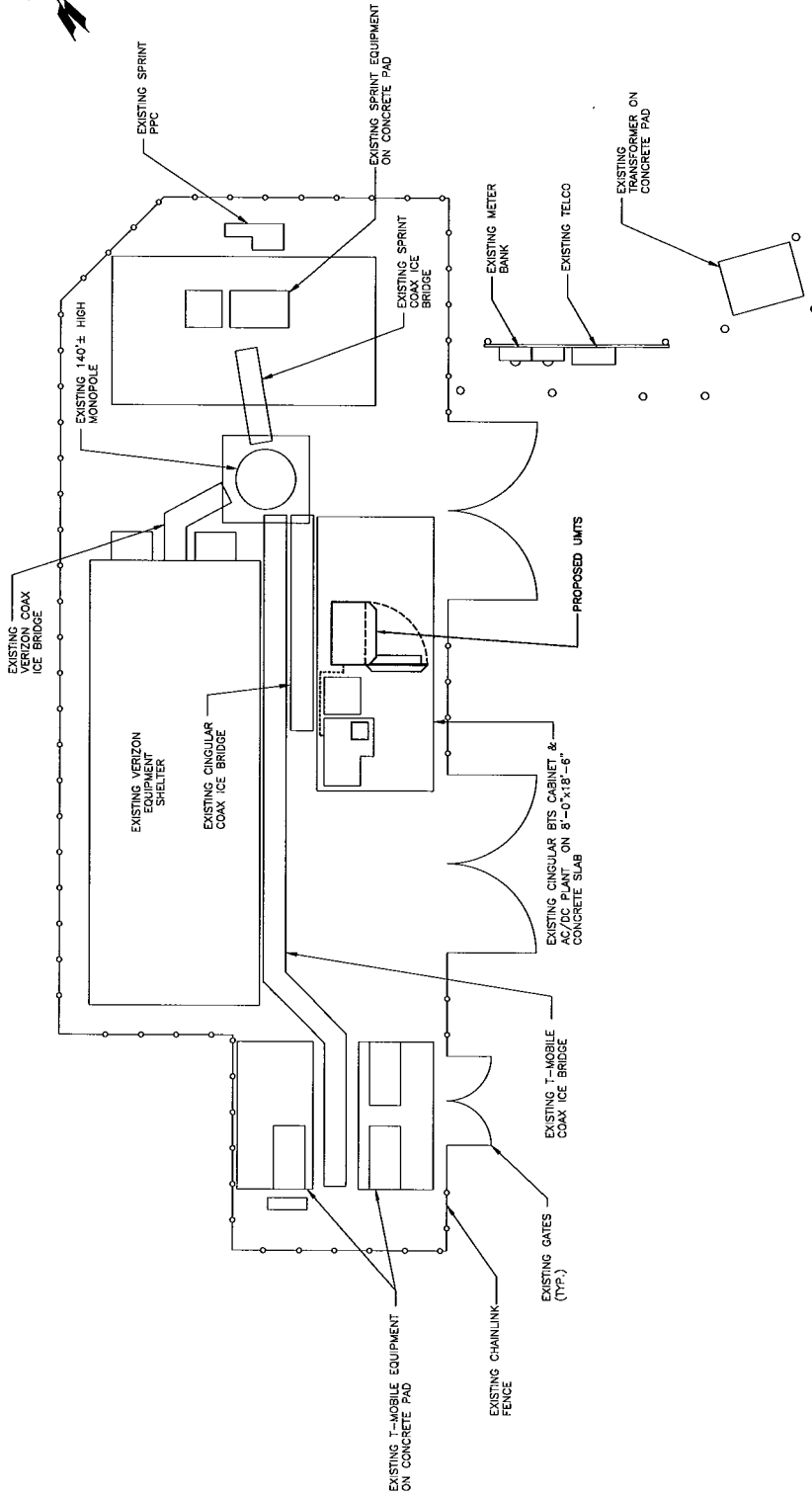
The attached structural analysis demonstrates that the tower and foundation have sufficient structural capacity to accommodate the proposed modifications. (Semaan Engineering, 12/31/07)



PROPOSED CABLE TRAY

0 1'-0" 2'-0" 4'-0" 6'-0"

[illegible]



**COMPOUND PLAN
OUTDOOR UNITS**

SCALE: 1/4"=1'-0"

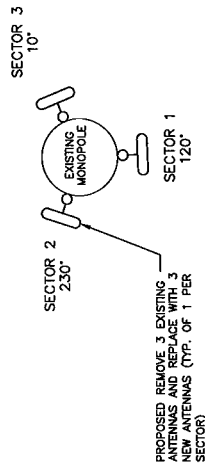
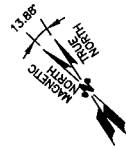


 42 BEECHWOOD DR. WATERBURY, VT 05671 TEL: 802.244.5555 FAX: 802.244.5555	 184 ROCKINGHAM ROAD, UNIT A LONDONDERRY, NH 03053	SITE NUMBER: 3159 SITE NAME: ORANGE-GRASSY HILL 700 GRASSY HILL ROAD ORANGE, CT 06477 NEW HAVEN COUNTY	 500 ENTERPRISE DRIVE, SUITE 3A ROCKY HILL, CT 06067	CINGULAR WIRELESS COMPOUND PLAN OUTDOOR UNITS	
				DATE	BY
				DESIGNED BY: AL	DRAWN BY: AL
				NO. 24178	3159.01

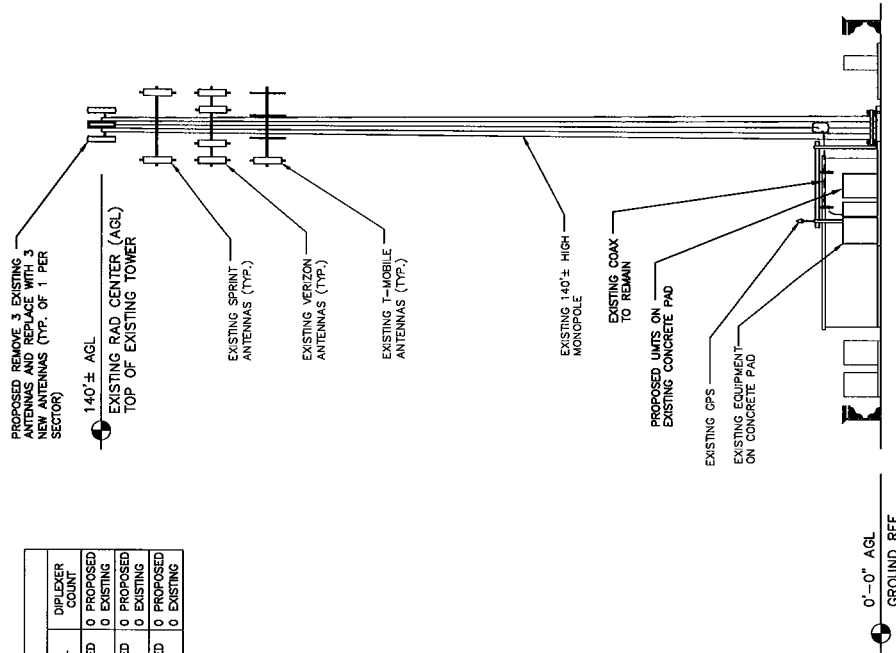
RF TABLE						
SECTOR	SECTOR NAME	ANTENNA MAKE & MODEL	ANTENNA COUNT	RAZMUTH CENTER	MECHANICAL DOWNTILT	DIPLEXER COUNT
1	ALPHA	LGP ALICON 7770	1 PROPOSED 0 EXISTING	120°	0°	0 PROPOSED 0 EXISTING
2	BETA	LGP ALICON 7770	1 PROPOSED 0 EXISTING	230°	0°	0 PROPOSED 0 EXISTING
3	GAMMA	LGP ALICON 7770	1 PROPOSED 0 EXISTING	10°	0°	0 PROPOSED 0 EXISTING

NOTE:
AN ANALYSIS FOR THE CAPACITY OF THE EXISTING STRUCTURES AND EQUIPMENT SHALL BE DETERMINED PRIOR TO CONSTRUCTION.

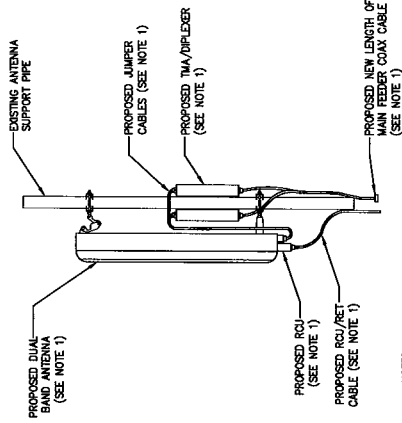
NOTE: *
REFER TO THE FINAL RF DATA SHEET FOR FINAL ANTENNA SETTINGS.



PROPOSED ANTENNA PLAN VIEW
SCALE: NTS



PROPOSED NORTHEAST ELEVATION
SCALE: 3/32" = 1'-0"
0 5'-4" 10'-8" 21'-4" 32'-0"



PROPOSED ANTENNA DETAIL
SCALE: NTS
NOTES:
1. REFER TO RF CONFIG & SECTOR SCHEMATICS FOR QUANTITY REQUIRED PER SECTOR

4 BEDFORD ST. TEL: 603-688-0000
1000 WILSON AVE TEL: 603-688-0000

184 ROCKINGHAM ROAD, UNIT A
LONDONDERRY, NH 03053

SITE NAME: ORANGE-GRASSY HILL
700 GRASSY HILL ROAD
ORANGE, CT 06477
NEW HAVEN COUNTY

SITE NUMBER: 3159

3 04/24/07 CONSTRUCTION FINAL
2 08/14/07 CONSTRUCTION FINAL
1 04/28/07 CONSTRUCTION FINAL
0 04/18/07 ISSUED FOR CONSTRUCTION

NO. DATE BY CHK APPR

REVISIONS

DESIGNED BY: AL
SCALE: NOT SHOWN

3159.01
A-2

3

CINGULAR WIRELESS

ANTENNA LAYOUT AND ELEVATION
OUTDOOR UNITS





New Cingular Wireless PCS, LLC
500 Enterprise Drive
Rocky Hill, Connecticut 06067-3900
Phone: (860) 513-7636
Fax: (860) 513-7190

Steven L. Levine
Real Estate Consultant

January 7, 2008

Honorable James M. Zeoli
1st Selectman, Town of Orange
Town Hall, 617 Orange Center Rd.
Orange, CT 06477-2423

Re: Telecommunications Facility – 700 Grassy Hill Road, Orange

Dear Mr. Zeoli:

In order to accommodate technological changes, implement Uniform Mobile Telecommunications System ("UMTS") capability, and enhance system performance in the State of Connecticut, New Cingular Wireless PCS, LLC ("Cingular") will be changing its equipment configuration at certain cell sites.

As required by Regulations of Connecticut State Agencies ("R.C.S.A.") Section 16-50j-73, the Connecticut Siting Council has been notified of the changes and will review Cingular's proposal. Please accept this letter as notification under Section 16-50j-73 of construction which constitutes an exempt modification pursuant to R.C.S.A. Section 16-50j-72(b)(2).

The accompanying letter to the Siting Council fully describes Cingular's proposal for the referenced cell site. However, if you have any questions or require any further information on our plans or the Siting Council's procedures, please call me at (860) 513-7636 or Mr. Derek Phelps, Executive Director, Connecticut Siting Council at (860) 827-2935.

Sincerely,

Steven L. Levine
Real Estate Consultant

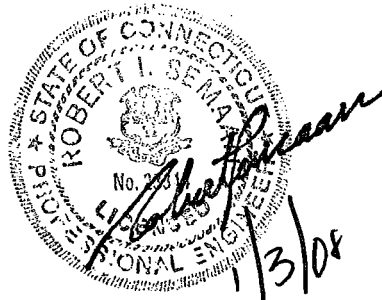
1079 N. 204th Avenue
Elkhorn, NE 68022
Ph: 402-289-1888
Fax: 402-289-1861

SEMAAN ENGINEERING SOLUTIONS

140 ft EEI Monopole Structural Analysis

Prepared for:
Sprint Sites USA
6120 Power Ferry Rd., 2nd Floor
MAILSTOP: GAATLV0204-2078
Atlanta, GA 30339-2923

Site: CT23XC313
For: Cingular
Orange, CT



December 31, 2007

Ms. Tawana Beverly
Sprint Sites USA
6120 Power Ferry Rd., 2nd Floor
MAILSTOP: GAATLV0204-2078
Atlanta, GA 30339-2923

Re: Site Number CT23XC313 – Orange, CT.

Dear Ms. Beverly:

We have completed the structural analysis for the existing monopole, located at the above referenced site. The purpose of this analysis is to determine that the existing monopole design is in conformance with the TIA/EIA-222 Rev F standard and local building codes for the proposed antennae loads installation. Refer to the Review and Recommendations section at the end of this report for the analysis results.

Description of Structure:

The structure is a 140 ft EEI Monopole.

Refer to EEI drawing job # 12364 dated March 3, 2004 for a detailed description of the structure.

Method of analysis:

The tower was analyzed using Semaan Engineering Solutions' software suite for communication structures. The structural analysis is performed using the SAPS finite element engine. The method is 3D, non-linear, which accounts for the second order geometric effects due to the displacements. It also treats guys as exact cable elements and therefore is ideal for guyed towers. The analysis was performed in conformance with TIA/EIA-222 Rev F and local building codes for a basic wind speed of 90 mph and 1/2" radial ice with reduced wind speed (fastest mile). This is in conformance with the IBC 2006: Section 1609.1.1, Exception (4) and Section 3108.4. Wind is applied to the structure, accessories and antennas.

Structure loading:

The following loads were used in the tower analysis:

Elev (ft)	Qty	Antennas	Mounts	Coax	Carrier
130.0	3	DTMA-BRS160	Low Profile Platform	(15) 1 5/8	Sprint
	1	VHLP800-11			
	12	XP4-65-R			
120.0	12	DB844H90	Low Profile Platform	(12) 1 5/8	Verizon
110.0	6	RR90-17-02	Low Profile Platform	(12) 1 5/8	T-Mobile

Proposed Loads:

Elev (ft)	Qty	Antennas	Mounts	Coax	Carrier
139.5	6	TMA	(3) Standoff Arms	(6) 1 5/8	Cingular
	3	Powerwave 7770.00			

All new access holes shall be reinforced with welded rims that are compatible with the pole and to be sized and supplied by pole manufacturer.

All transmission lines are assumed running inside of pole shaft.

Results of Analysis:

Refer to the attached Computer Summary sheets for detailed analysis results.

Structure:

The existing monopole is structurally capable of supporting the existing and proposed antennas.

The maximum structure usage is: 74.6%.

Foundation:

Pole Reactions	Original Design Reactions	Current Analysis Reactions	% Of Design
Moment (ft-kips)	2,561.00	2,173.86	84.9
Shear (kips)	24.70	21.80	88.2

The analysis reactions are less than the design reactions therefore no foundation modifications are required.

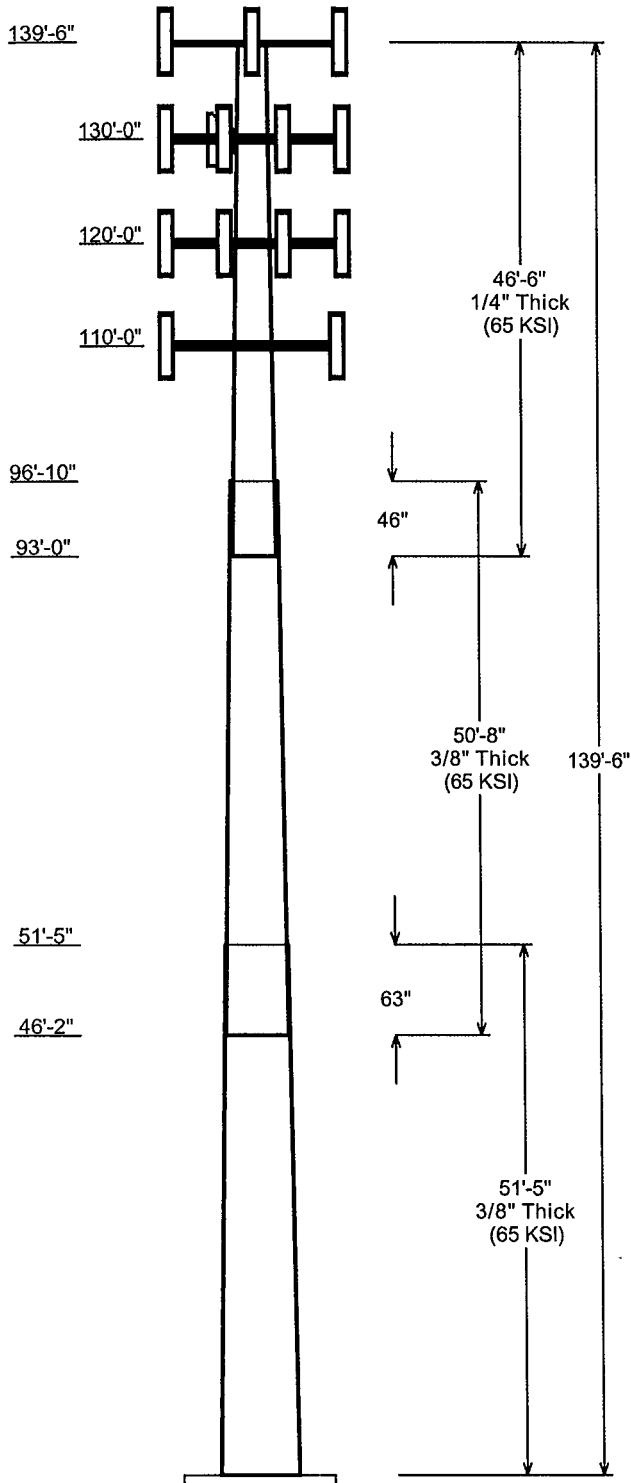
Review and Recommendations:

Based on the analysis results, the existing structure meets the requirements per the TIA/EIA-222 Rev F standards for a basic wind speed of 90 mph and 1/2" radial ice with reduced wind speed.

SEMAAN ENGINEERING SOLUTIONS

1079 N.204th Avenue
Elkhorn, NE 68022
Phone: 402-289-1888
Fax: 402-289-1861

Copyright Semaan Engineering Solutions, Inc

**Job Information**

Pole: CT23XC313 Code: TIA/EIA-222 Rev F
Description :
Client : Sprint Sites USA - GA
Location : Orange, CT
Shape : 18 Sides Base Elev (ft): 0.00
Height : 139.50 (ft) Taper: 0.245520(in/ft)

Sections Properties

Shaft Section	Length (ft)	Diameter (in)		Thick Joint (in)	Overlap Length (in)	Steel Taper (in/ft)	Steel Grade (ksi)
		Across Top	Flats Bottom				
1	51.417	35.87	48.50	0.375	0.000	0.245520	65
2	50.667	25.47	37.91	0.375 Slip Joint	63.000	0.245520	65
3	46.499	15.50	26.91	0.250 Slip Joint	46.000	0.245520	65

Discrete Appurtenance

Attach Elev (ft)	Force Elev (ft)	Qty	Description
139.500	139.500	6	TMA
139.500	139.500	3	Standoff Arms
139.500	139.500	3	Powerwave 7770.00
130.000	130.000	3	DTMA-BRS160
130.000	130.000	1	VHLP800-11
130.000	130.000	12	XP4-65-R
130.000	130.000	1	Low Profile Platform
120.000	120.000	1	Low Profile Platform
120.000	120.000	12	DB844H90
110.000	110.000	1	Low Profile Platform
110.000	110.000	6	RR90-17-02

Linear Appurtenance

Elev (ft) From	To	Description	Exposed To Wind
0.000	110.0	1 5/8 Coax	No
0.000	120.0	1 5/8 Coax	No
0.000	130.0	1 5/8 Coax	No
0.000	139.5	1 5/8 Coax	No

Load Cases

No Ice	90.00 mph Wind with No Ice
Ice	77.94 mph Wind with Ice
Twist/Sway	50.00 mph Wind with No Ice

Reactions

Load Case	Moment (Kip-ft)	Shear (Kips)	Axial (Kips)
No Ice	2173.86	21.80	23.89
Ice	1828.55	17.83	29.15
Twist/Sway	671.66	6.73	23.93

'Dish Deflections

Load Case	Attach Elev (ft)	Deflection (in)	Rotation (deg)
Twist/Sway	130.00	23.115	1.679